UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,105	12/31/2003	Seung-Nyung Chung	1793.1160	6927

21171 7590 05/04/2007

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
VO, HUYEN X	

ART UNIT	PAPER NUMBER
2626	

MAIL DATE	DELIVERY MODE
05/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,105	CHUNG ET AL.	
	Examiner	Art Unit	
	Huyen X. Vo	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-4, 8, 12-14, 16-17, 19, and 26* is/are rejected.

7)☒ Claim(s) *2,5-7,9-11,15,18,20-25 and 27-29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4 sheets*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 8, 12-14, 16-17, 19, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al. (US 5864805).

3. Regarding claims 1 and 17, Chen et al. disclose a speech recognition method and apparatus comprising:

inputting speech uttered by a user (*col. 2, lines 50-60*);

recognizing the input speech and creating a list of a predetermined number of alternative words to be recognized in an order of similarity (*referring to figures 3-5*); and

determining one of the alternative words that a cursor currently indicates as a final, recognized word if a user selection has not been changed within a predetermined standby time, and rearranging an order of the list of the predetermined number of alternative words according to the user selection (*the operation of figure 7, elements 703-709, element 704 indicates a user selection of an alternative word, and element 705 enables the user to continue with the selection of cancel the selection; this step suggest that there is a waiting period. If the selection is not canceled at step 705, the selection is used as indicated in step 708*).

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 14-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

3. Claims 14-16 are drawn to a "program" *per se* as recited in the preamble (*paragraph 64 of the specification defines computer-readable medium as a carrier wave, which is a non-statutory subject matter*) and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*,

i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 8, 12-14, 16-17, 19, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al. (US 5864805).

6. Regarding claims 1 and 17, Chen et al. disclose a speech recognition method and apparatus comprising:

inputting speech uttered by a user (*col. 2, lines 50-60*);

recognizing the input speech and creating a list of a predetermined number of alternative words to be recognized in an order of similarity (*referring to figures 3-5*); and

determining one of the alternative words that a cursor currently indicates as a final, recognized word if a user selection has not been changed within a predetermined standby time, and rearranging an order of the list of the predetermined number of alternative words according to the user selection (*the operation of figure 7, elements*

703-709, element 704 indicates a user selection of an alternative word, and element 705 enables the user to continue with the selection of cancel the selection; this step suggest that there is a waiting period. If the selection is not canceled at step 705, the selection is used as indicated in step 708).

7. Regarding claim 14, Chen et al. disclose a computer-readable recording medium comprising:

a first program that recognizes speech uttered by a user and displays a list of alternative words derived from the recognition of the speech in a predetermined order (*referring to figures 3-5*); and

a second program that determines whether a user selection from the list of alternative words has been changed within a predetermined standby time and determines an alternative word on the list of alternative words that a cursor currently indicates, as the final, recognized word, if the user selection has not been changed (*the operation of figure 7, elements 703-709, element 704 indicates a user selection of an alternative word, and element 705 enables the user to continue with the selection of cancel the selection; this step suggest that there is a waiting period. If the selection is not canceled at step 705, the selection is used as indicated in step 708*).

8. Regarding claims 3, 8 and 16, Chen et al. further disclose the speech recognition method and computer-readable medium of claims 1 and 14, respectively, further comprising: determining another alternative word from the list of the predetermined

number of alternative words that is selected by the user as the final, recognized word, if the user's selection is changed within the standby time (*the operation of figure 7, elements 701-705, element 704 indicates a user selection of an alternative word, and element 705 enables the user to continue with the selection or cancel the selection; this step suggest that there is a waiting period. If the selection is cancelled, then going back to waiting for a new selection*), adjusting the standby time according to user dexterity (*operation of figure 7*).

9. Regarding claim 12-13, Chen et al. further disclose the speech recognition method of claim 1, wherein the standby time is equally assigned to all of the alternative words on the list of alternative words, wherein the standby time is assigned differentially to each of the alternative words on the list of alternative words according to the predetermined order of listing the alternative words (*within the scope of the reference, operation of figure 7*).

10. Regarding claim 19, Chen et al. disclose the speech recognition apparatus of claim 17, wherein the post-processor comprises:

a window generator that generates a window for a graphic user interface comprising a list of alternative words that arranges the predetermined number of alternative words in a predetermined order (*figures 3-5*);

a standby time setter that sets a standby time from when the window is displayed to when one of the alternative words on the list of alternative words currently indicated

by the cursor is determined as a final, recognized word (*the operation of figure 7, elements 703-709, element 704 indicates a user selection of an alternative word, and element 705 enables the user to continue with the selection of cancel the selection; this step suggest that there is a waiting period*); and

a final, recognized word determiner that determines the one of the alternative words on the list of alternative words currently indicated by the cursor as the final, recognized word if a user selection from the list of alternative words has not been changed within the standby time and determines another alternative word on the list of alternative words selected by the user as the final, recognized word if the user's selection from the list of alternative words has been changed (*the operation of figure 7, elements 703-709, element 704 indicates a user selection of an alternative word, and element 705 enables the user to continue with the selection of cancel the selection; this step suggest that there is a waiting period. If the selection is not canceled at step 705, the selection is used as indicated in step 708*).

11. Regarding claim 26, Chen et al. disclose a speech recognition method comprising:

displaying a list of alternative words, including a first alternative word, resulting from speech recognition (*figures 3-5*);

determining whether an initial standby time has elapsed (*the operation of figure 7, element 704 indicates a user selection of an alternative word, and element 705*

enables the user to continue with the selection of cancel the selection; this step suggest that there is a waiting period); and

determining the first alternative word as the final, recognized word if a user has not selected another alternative word from the list of alternative words after the predetermined standby time has elapsed, wherein the list of alternative words is continuously updated and arranged in a predetermined order by computing a number of times the first alternative word and the final recognized word match (*the operation of figure 7, elements 703-709, element 704 indicates a user selection of an alternative word, and element 705 enables the user to continue with the selection of cancel the selection; this step suggest that there is a waiting period. If the selection is not canceled at step 705, the selection is used as indicated in step 708*).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US 5864805) in view of Huang et al. (US 5829000).

14. Regarding claim 4, Chen et al. fail to specifically disclose the speech recognition method of claim 1, wherein the determination further comprises: updating erroneous word patterns using the one of the alternative words and the final, recognized word resulting from the recognition of the speech; and adjusting the order of the list of the predetermined number of alternative words using the erroneous word patterns. However, Huang et al. teach updating erroneous word patterns using the one of the alternative words and the final, recognized word resulting from the recognition of the speech; and adjusting the order of the list of the predetermined number of alternative words using the erroneous word patterns (*element 903 in figure 9, training recognizer*).

Since Chen et al. and Huang et al. are analogous art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Chen et al. by incorporating the teaching of Huang et al. in order to improve speech recognition accuracy for subsequent recognitions.

Allowable Subject Matter

15. Claims 2, 5-7, 9-11, 15, 18, 20-25, and 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

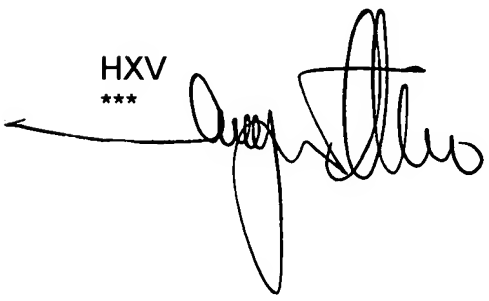
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HXV
***



4/28/2007